

ABSTRACT

A multi-pole switch with a neutral position is provided with an efficient mechanical layout. Such switch is suitable for use in relay format in an automatic battery booster cable system to be used to connect a polarized source and a polarized load, eg. two batteries together in parallel, with automatically correct polarity. The relay switch in the booster cable application is driven by an electronic controller which senses the polarity of the two batteries and connects the two batteries with the correct polarity. The electronics provides features for setting the relay to neutral, thereby disconnecting the source from the load when any of the cables are disconnected, while maintaining current flow under high load conditions.

The booster cable system also employs direct inter-connections between the cable conductors and the relay contacts thus simplifying the construction of the relay. The relay makes use of resilient polymeric elements instead of coiled springs to minimize relay re-bound.